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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/261,081	03/02/1999	KENNETH SOOHOO	17201-706	7286

21971 7590 01/30/2002

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EXAMINER

GOOD JOHNSON, MOTILEWA

ART UNIT PAPER NUMBER

2672

DATE MAILED: 01/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/261,081

Applicant(s)

SOOHOO, KENNETH

Examiner

Motilewa A. Good-Johnson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-65 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-65 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is responsive to communications: application, filed on 03/02/1999; IDS, paper #4, filed on 04/21/1999; IDS, paper #5, filed on 09/29/2000; IDS, paper #10, filed on 02/05/2001; Preliminary Amendment C, filed on 09/17/2001.
2. Claims 1-65 are pending in the case. Claims 1, 16, 30, 39, 50 and 56 are independent claims. Claims 1, 16, 30, 39, 50 and 56 have been amended.
3. The present title of the application is "Anti-Aliasing System and Method" (as originally filed).

Continued Examination Under 37 CFR 1.114

4. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/17/2001 has been entered.

Claim Rejections - 35 USC § 102

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Nishida, U.S. Patent Number 6,208,319, "Display Device", class 345/1, 03/27/2001, filed on 10-06/1997.

As per independent claim 1, **a method of displaying a character . . . comprising: determining a representation of a character in a bit map having a number of bits greater than a number of pixels in a region of a display wherein Nishida discloses in col. 2, lines 30-67; various bits in a respective portion of the bit map correspond to a pixel; Nishida discloses in col. 3, lines 1-20; among the various bits that correspond to the pixel, different bits correspond to different locations on the character; Nishida discloses in col. 3, lines 21-30; based on a percentage of bits . . . determining luminances for corresponding pixels; Nishida discloses in col. 19, lines 1-21; and displaying the character in the region having the particular number of pixels . . .** Nishida discloses in col. 19, lines 36-60 and in figure 21A-21D.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishida in view of Kumazaki et al., U.S. Patent Number 5,555,360.

With respect to dependent claim 2, . . . **determining a representation of the character in a bit map includes generating the bit map based on a vector representation . . .** However, it is noted that Nishida fails to disclose a vector representation of the bit map. Kumazaki et al. discloses in col. 2, lines 49-56, using vector font to describe the contents of an image or document for each page including style and format. Kumazaki et al. further discloses that vector image processing can provide a superior image quality of an output image when compared to the conventional system using the bit map font. It would have been obvious to one of ordinary skill in the art at the time of the invention of Gibson to include vector representation of character and graphics data to "provide a superior image quality of an output image" as disclosed in Kumazaki.

With respect to dependent claims 3 and 4, . . . **wherein the vector representation of the character comprises a character defined in accordance with a page description language (. . . type 1 page description language).** Kumazaki et al. discloses in col. 2, lines 38-45.

With respect to dependent claims 5-7 respectively, . . . **the number of bits in the bit map is at least twice (four times; ten times) as great as the number of pixels in the region.** Nishida discloses in col. 3, lines 3-15.

With respect to dependent claim 8, . . . **the luminance of a pixel is substantially at a minimum level if substantially all of the bits in the corresponding bit map are on.** Nishida discloses in col. 19, lines 50-60.

With respect to dependent claim 9, . . . **the luminance of a pixel is substantially at a maximum if substantially all of the bits in the corresponding bit map are off.** Nishida discloses in col. 19, lines 50-60.

With respect to dependent claim 10, . . . **a respective portion of the bit map includes four sets of 4 bits.** Nishida discloses in figure 16A.

With respect to dependent claim 11, . . . **including counting the number of bits that are on in the four sets of 4 bits.** Nishida discloses in figure 21A and 21C, col. 19, lines 53-55.

With respect to dependent claim 12, . . . **the four sets of four bits comprises four halves of four bytes in a memory.** Nishida discloses figure 20A.

With respect to dependent claim 13, . . . **determining luminances comprises: for at least a subset of bits in a respective portion . . . using a table to determine the number of bits on in the subset, and adding the number of bits on for all subsets of bits . . .** Nishida discloses in figures 21C. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a table for determining bits on in the subset, for it is well know in the art to implement tables for faster rendering and to reduced bandwidth.

With respect to dependent claim 14, . . . **subset of bits comprises a byte.** Nishida discloses in figure 23.

With respect to dependent claim 15, . . . **subset of bits comprises four sequential bits in a byte.** Nishida discloses in figure 16A.

As per independent claim 16, **a system for display a character . . . comprising: logic that renders a bit map corresponding to a vector representation . . . ; logic that causes the logic that renders to render a bit map . . . wherein various bits in a respective portion of the bit map correspond to a pixel; and . . . different bits correspond to different locations on the character ;** Nishida discloses in col. 3, lines 21-30; **logic that . . . determines luminances for corresponding pixels; and logic that causes the character to be displayed in the region . . .** Nishida discloses in col. 19, lines 1-21.

However, it is noted that Nishida fails to disclose a vector representation of the bit map. Kumazaki et al. discloses in col. 2, lines 49-56. It would have been obvious to one of ordinary skill in the art at the time of the invention to include vector representation for output of character and graphics data.

With respect to dependent claims 17-19 and 22-23, see above rejection for dependent claims 5-7 and 15 and 13 respectively.

With respect to dependent claims 24-27, . . . **the display comprising a (television; color television; display of hand held device; billboard.)** Nishida discloses in col. 1, lines 4-7.

With respect to dependent claim 28 and 29, . . . **logic for communication with the internet; web browser logic.** Nishida discloses in col. 6, lines 4-16. However, it is noted that Nishida fails to disclose communication with the internet and web browser

logic. It would have been obvious to one of ordinary skill in the art at the time of the invention to include logic for communicating with the internet and web browsers to display for every pixel of characters or picture images as a whole.

As per independent claim 30 and dependent claims 31-33, they are rejected based upon similar rational as above independent claim 1 and dependent claims 2, 5 and 7 respectively.

With respect to dependent claim 34, . . . **the shape comprises a character.**
Nishida discloses in figure 21A.

With respect to dependent claims 35-38, see above rejection for dependent claims 24-26 and 28 respectively.

As per independent claims 39, 50, and 56 they are rejected based upon similar rational as above independent claim 16 respectively.

With respect to dependent claims 42, 43, and 46-49, they are rejected based upon similar rational as above dependent claims 17, 19, 22-23, 28 and 29 respectively

With respect to dependent claims 40 and 41, . . . **the television signal comprises a (terrestrial television broadcast signal; cable television signal.)**
Nishida discloses in col. 21, lines 1-10, said invention can be used to carry out moving picture display. It would have been obvious to one of ordinary skill in the art to display said anti-aliased character on a television comprising differing signals in that the memory of said television display is unaffected.

With respect to dependent claims 51, 52, 54 and 55, they are rejected based upon similar as above dependent claims 5, 6, 28 and 29 respectively.

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With respect to dependent claims 57-59, . . . **the attribute comprises (hue; saturation; luminance.)** Nishida discloses in col. 19, lines 1-21.

With respect to dependent claims 60-62 and 64-65, they are rejected based upon similar rational as above dependent claims 5, 6, 24 and 28 respectively.

Response to Arguments

9. Applicant's arguments with respect to claims 1-65 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Motilewa A. Good-Johnson whose telephone number is (703) 305-3939. The examiner can normally be reached on Monday - Friday 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (703) 305-4713. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

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Motilewa A. Good-Johnson
Examiner
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mgj
November 30, 2001

A handwritten signature in black ink, appearing to read 'Matthew Luu', with a stylized flourish at the end.

MATTHEW LUU
PRIMARY EXAMINER